



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,980	08/30/2001	Kenichi Kawai	100794-11771(FUJG 18.948)	7689
26304	7590	11/05/2004	EXAMINER HUYNH, KIM T	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			ART UNIT 2112	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/942,980	Applicant(s) KAWARAI ET AL.	
	Examiner Kim T. Huynh	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by anticipated by Angle et al. (US Patent 6,771,596)

As per claim 1, Angle discloses a packet switch, comprising:

- N input buffer sections, provided for respective N input lines(fig.2, 107), for storing unicast packets and multicast packets input through corresponding input lines; (col.5, lines 30-50), (col.6, lines 37-51)
- a switch section(fig.2, 120) for outputting a unicast packet to any of M output lines to which the unicast packet is transmitted when the unicast packet is input from each of the N input buffer sections, and outputting the multicast packet to a plurality of M output lines to which the multicast packet is to be transmitted when the multicast packet is input; (col.6, lines 37-51)

- and a scheduler section for selecting the unicast packet or the multicast packet to be output from each of said N input buffers such that the input lines and the output lines cannot conflict each other for the unicast packet, and such that the input lines cannot conflict each other for the multicast packet. (col.5, lines 1-10), (col.16, lines 42-62)

As per claim 2, Angle discloses wherein said switch section comprises:

- a first storage section for storing the unicast packet corresponding to each of the M output lines; (col.4, lines 39-61)
- and a second storage section for storing the multicast packet corresponding to each of the N input lines. (col.4, lines 39-61)

As per claim 3, Angle discloses wherein priority control is performed by dividing for each quality of service said input buffer sections and at least one of the first storage section and the second storage section of said switch section. (col.17, line 53-col.18, 17)

As per claim 4, Angle discloses wherein said unicast packet or said multicast packet can be stopped to enter said switch section from said input buffer section by issuing a congestion notification from the switch section to at least one of the input buffer section and the scheduler section when said first storage section or second storage section enters a congestion state. (col.7, lines 7-36)

As per claim 5, Angle discloses wherein said scheduler section can reserve a timing at which a packet other than the multicast packet cannot be transmitted through a plurality of destination output lines of the multicast packets,

when the multicast packet is inputted from said input buffer section to said switch section. (col.6, lines 4-36)

As per claim 6, Angle discloses wherein: a plurality of switch sections are provided;

- one of said switch sections receives a part of a divided unicast packet or multicast packet input through the input line and divided into plural sections; (col.16, lines 42-62), (col.6, lines 40-51)
- and said plurality of switch sections concurrently transfer plural pieces of divided data corresponding a packet. (col.4, lines 52-61), (col.7, lines 51-67)

As per claim 7, Angle discloses wherein:

- a plurality of switch sections are provided, one of said switch sections receives a unicast packet or a multicast packet input through the input line in plural unit times; (col.6, lines 4-36)
- and said plurality of switch sections concurrently transfer different packets. (col.4, lines 52-61)

As per claim 8, Angle discloses wherein:

- a plural packets forms a frame; (col.6, lines 31-51, wherein length packets fragmented fixed length inherently implies a frame)
- each of the plural packets is assigned a first sequence number for identification of an order of the frame, and a second sequence number for identification of an order of the packet in the frame; (col.7, lines 37-67)

- and said packet switch further comprises a frame assembly section for rearranging the packets in the frame based on the second sequence numbers, and rearranging the frames based on the first sequence numbers in the output lines. (col.5, lines 11-17)

As per claim 9, Angle discloses wherein:

- a plural packets forms a frame; (col.4, lines 31-51, wherein length packets fragmented fixed length inherently implies a frame)
- each of the plural packets is assigned a first sequence number for identification of an order of the frame, and a second sequence number for identification of an order of the packet in the frame; (col.7, lines 37-67)
- and a corresponding switch section is instructed to stop transferring operations of packets when a number of frames being rearranged reaches a predetermined value when the packets are rearranged based on the first and second sequence numbers in the output lines. (col.7, lines 7-67)

As per claim 10, Angle discloses wherein:

- an IP packet having a variable length is formed by said plurality of packets; (col.4, lines 39-51)
- and a packet belonging to the same flow is input to the same switch section based on a flow identification of the IP packet in the input lines. (col.7, lines 51-67)

Response to Amendment

3. Applicant's amendment filed on 8/04/04 have been fully considered but are moot in view of the new ground(s) of rejection.

a. In response to applicant's argument that Reches does not disclose or suggest distinct scheduling processes for each of unicast and multicast packets. However, Angle discloses one embodiment of the present invention, a novel scheduling approach permits unicast scheduling processing and multicast scheduling processing to operate in parallel and independently resulting in a combined schedule comprising both unicast and multicast cells. (col.16, lines 42-62)

Thus, the prior art teaches the invention as claimed and the claims do not distinguish over the prior art as applied.

Conclusion

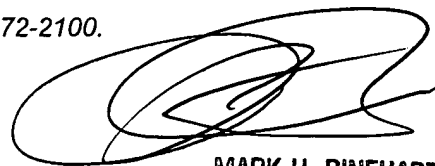
4. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9.00AM- 6:00PM.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

Oct. 26, 2004



**MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**